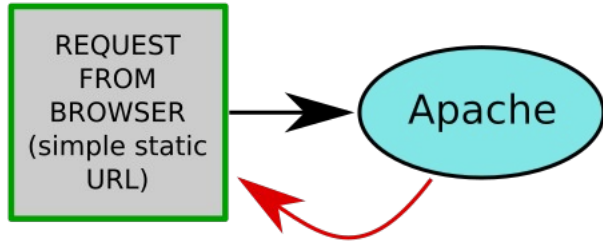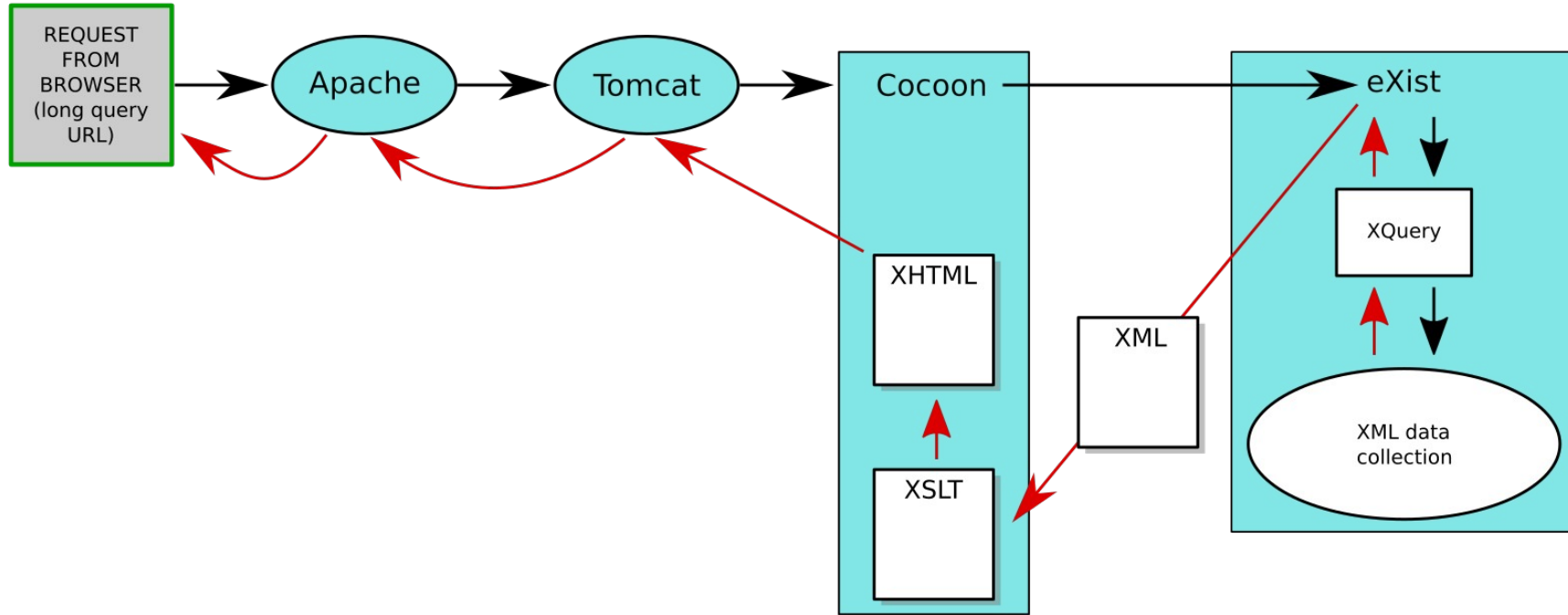# Digital Dependencies

Part of "Endings: How to End Your Digital Project"
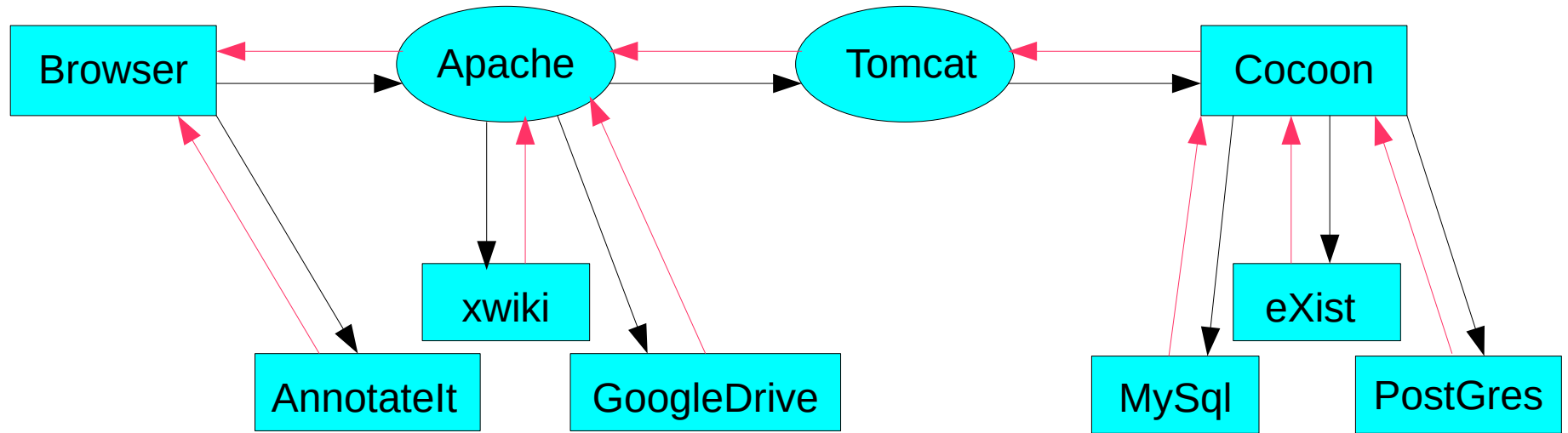@ DHSI 2019

Stewart Arneil (UVic)

What Appears to Happen

What Might Typically Happen

What Has Happened to Us
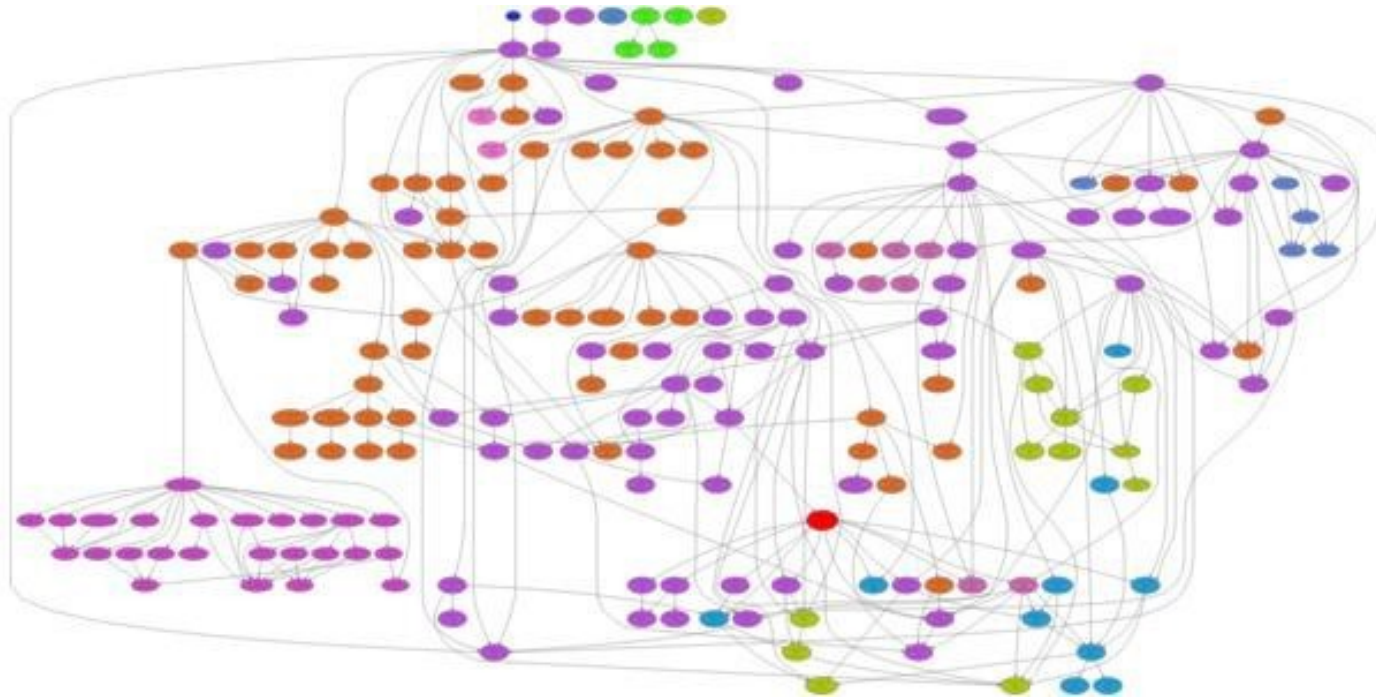
Stack of Dependencies

- Your code and data

- Plugins/customizations

- Applications and libraries

- Server

- Operating System

- Hardware

Stack of Dependencies

- Your code and data

- Plugins/customizations

- Applications and libraries

- Server

- Operating System

- Hardware

- My Research

- Jo's Photo Gallery

- WordPress

- PHP

- Apache, MySQL servers

- Unix

- Dell, IBM, etc.

What Can Happen

Choose Dependencies Wisely

Dependency Choices (1)

	Poor	Wise
Thought put in	Unwitting, casual	Conscious
Number	Many, varied	None or few
Legal, terms issues	Yes or commercial	No or open source
Own dependencies	Yes, poor ones	No or wise ones
Provider	Unreliable	Reliable
Documentation	Absent, incomplete	Thorough

Dependency Choices (2)

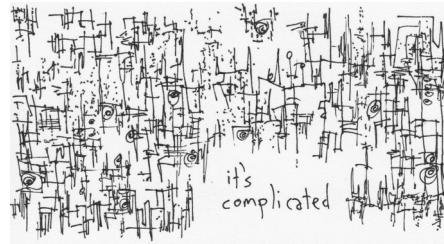|	Poor	Wise
Feature importance	Minor	Critical
Replaceable	Yes	No or at high cost
Effect of failure	Major or widespread	Minor or contained
Time	Indefinite	Limited
Thought put in	Unwitting, casual	Conscious

Managing Dependencies

- Embrace short-term pain for long-term gain

- Align risk with resources

- Separate concerns: data, processing, products
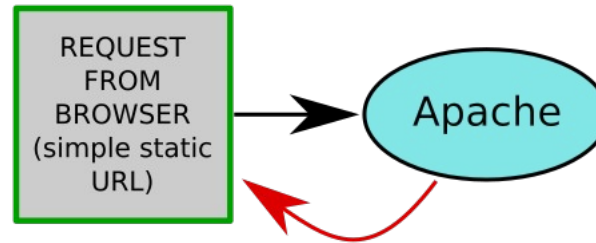
Endings-Oriented Approach

- Data

- Process

it's complicated

- Product

Who Ya Gonna Call?

- Researchers (content)
- Researchers (treatment)
- Librarians
- Sysadmins
- DH developers

Choose Wisely

Example Dependencies

Purpose	Blog comments	Timeline	Interactive Map	Complex Query
Using	WordPress	JQuery add-on	GoogleMaps	MySQL DB
Legal/terms	No	No	Yes	No
Dependencies	Yes, sql + php	Yes, jquery + js	Yes, tileserver	Yes, php
Provider	Reliable,?plugin	?addon, reliable	Opinion varies	Reliable
Documentation	Good	Good	Good	Good
Feature impact				
Replaceable				
Effect of fail				
Duration				
Poor/Wise				